Electronic Supplementary Material (ESI) for RSC Advances.

A novel sensitive fluorescent turn-on probe for rapid detection of Al^{3+} and bioimaging

Shuai Xia, Si-Yu Xiao, Qing-Qing Hong, Jing-Rong Zou, Sen Yang, Mu-Xue Zhang and Hua Zuo

Content

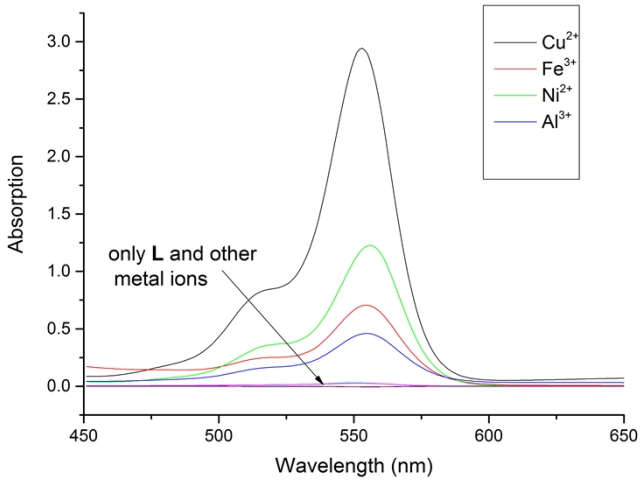

Fig. S1. Absorption spectra of probe **L** (25 μM) in EtOH/HEPES (9:1, v/v, pH 7.2) solution in the presence of 20 equiv. of different metal ions.

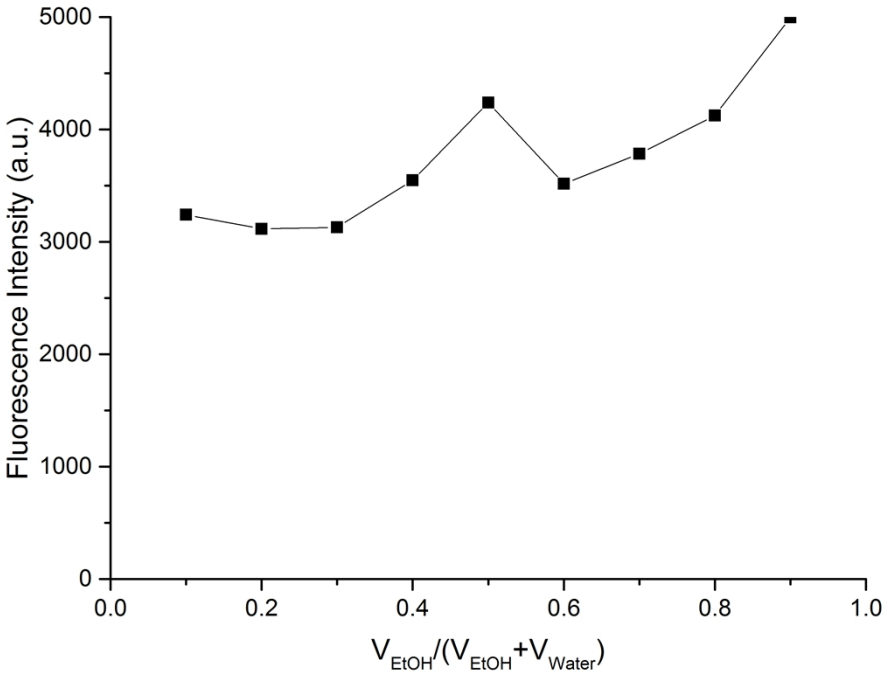

Fig. S2. Fluorescence intensity at 578 nm of probe **L** (25 μM) in different rations of EtOH/HEPES solution in the presence of 20 equiv. of different Al^{3+}.λex = 560 nm, λem = 578 nm.

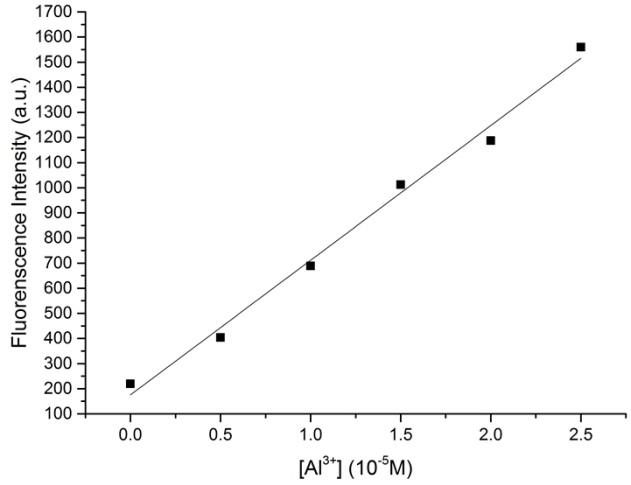

Fig. S3. Linear correlation between the fluorescence intensity and Al^{3+} concentration (R = 0.9902). 25 μM of probe **L** in the presence of various concentrations of AL^{3+} ranging from 0–1.0 equiv. λex = 560 nm, λem = 578 nm.

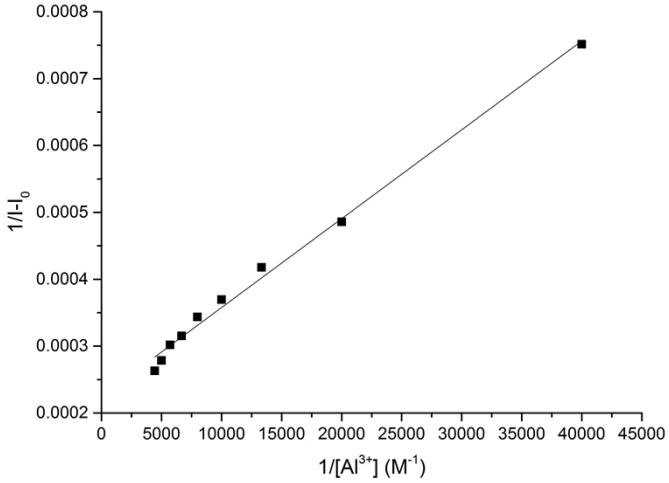

Fig. S4. Benesi-Hidebrand plot of 25 μM **L** in buffered EtOH/HEPES (9:1, v/v, pH 7.2) solution in the presence of Al^{3+} (1–9 equiv.) (R = 0.9926). λex = 560 nm, λem = 578 nm.

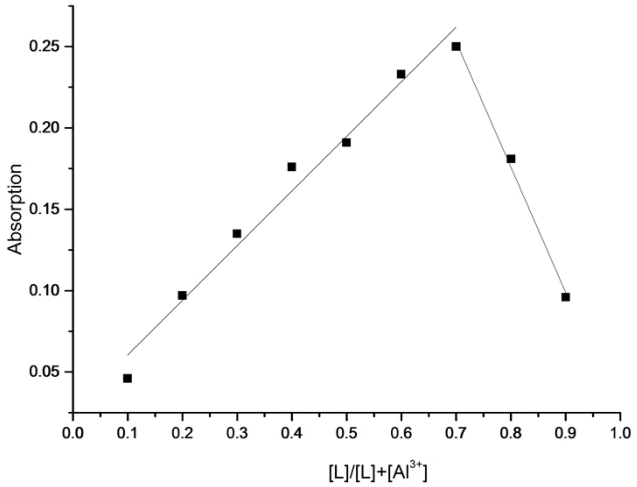

Fig. S5. Job's plot evaluated from the absorption spectra of probe **L** and Al^{3+} in EtOH/HEPES (9:1, v/v, pH 7.2) solution (the total concentration of **L** and Al^{3+} was 5.0×10^{-5}M).

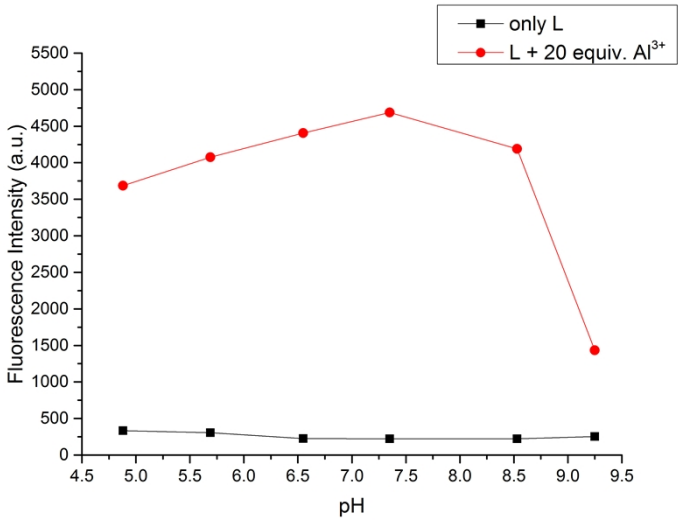

Fig. S6. Changes in the emission intensity at 578nm of probe **L** with pH before and after addition of 25 equiv. Al^{3+} in EtOH/HEPES (9:1, v/v, pH 7.2) solution. λex = 560 nm, λem = 578 nm.

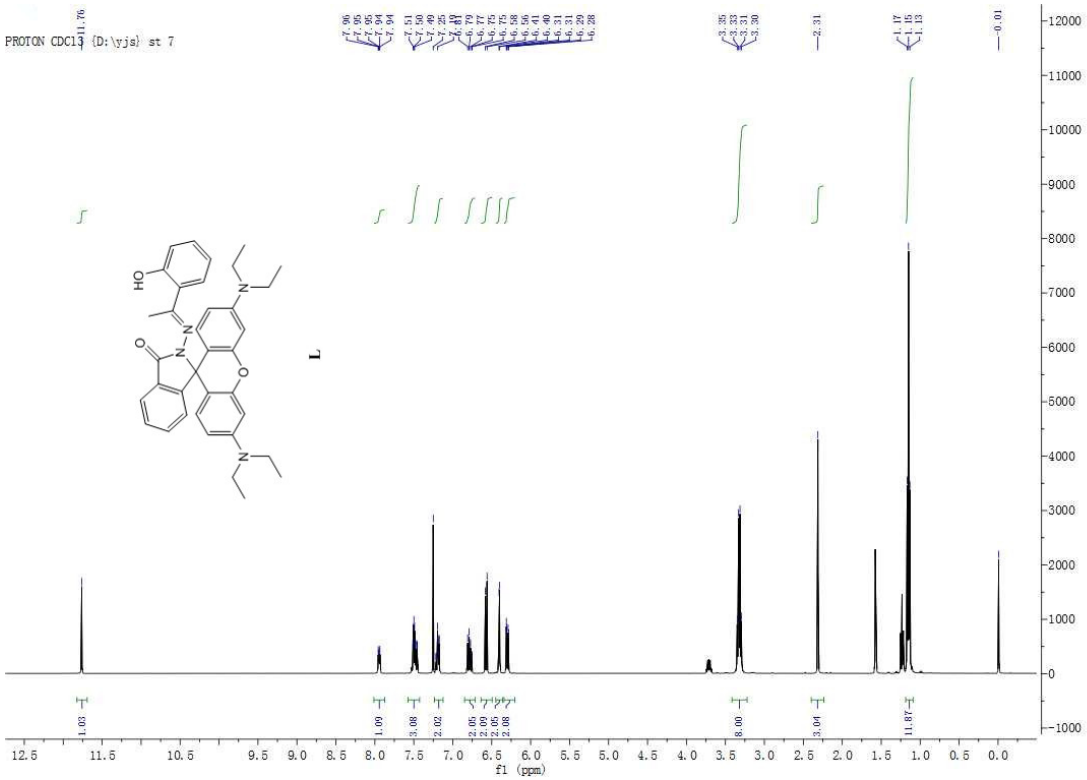

Fig. S7. The ^{1}H NMR spectrum of probe **L**.

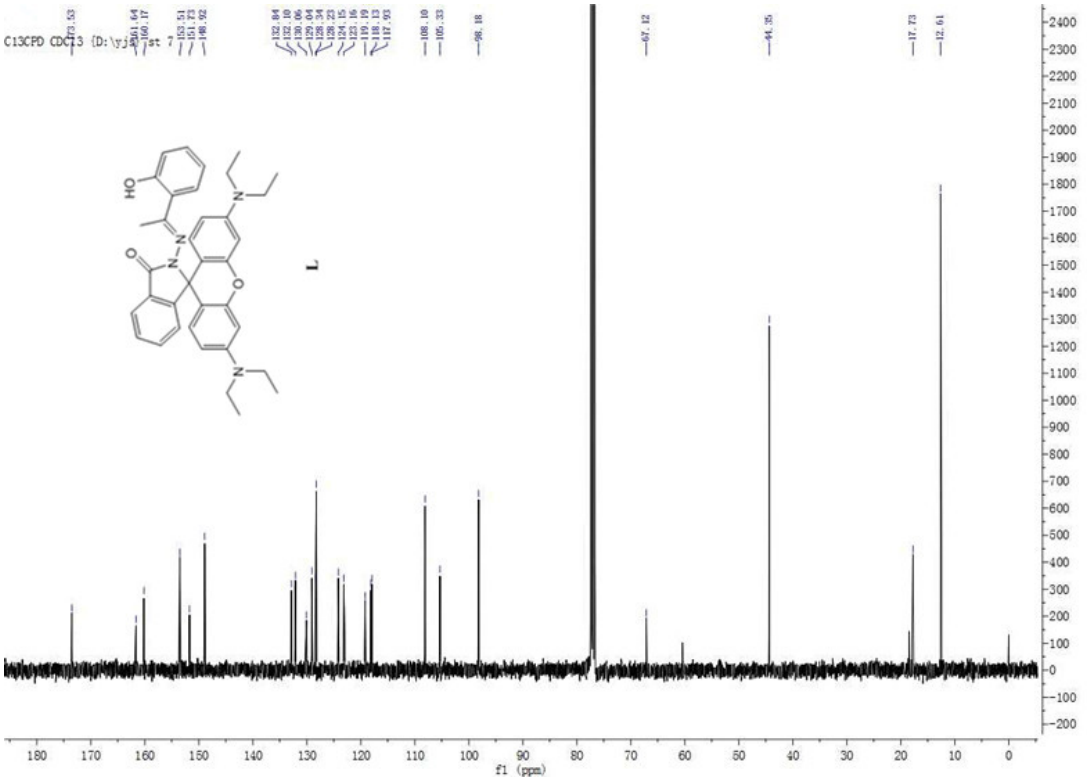

Fig. S8. The ^{13}C NMR spectrum of probe **L**.

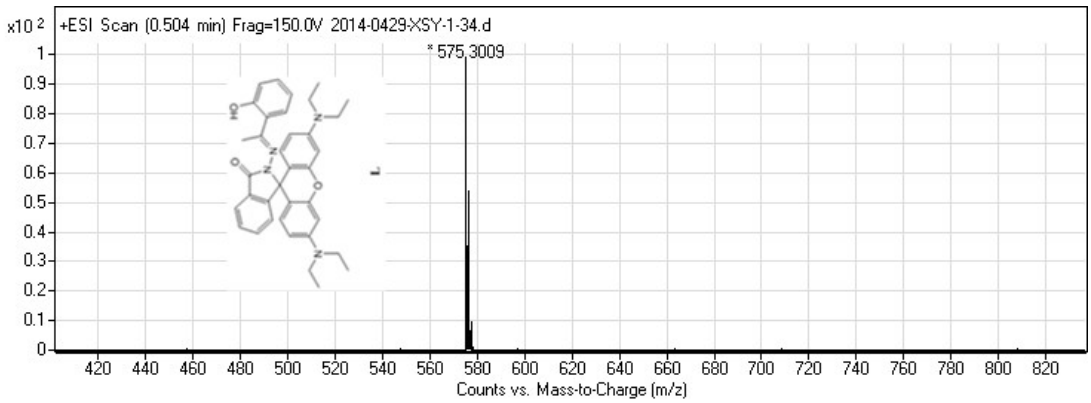

Fig. S9. The HRMS of probe **L**.